

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/DE2004/001838

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC 7 H01L29/786 H01L21/336		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) IPC 7 H01L		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 101 42 913 A (HAHN MEITNER INST BERLIN GMBH) 27 March 2003 (2003-03-27) cited in the application the whole document	1-22
X	US 6 426 259 B1 (YU BIN) 30 July 2002 (2002-07-30) column 3, line 46 - column 6, line 18; figures	1-10
X	US 5 612 563 A (FITCH JON T ET AL) 18 March 1997 (1997-03-18) column 3, line 48 - column 7, line 60; figures 1-4	1-10
	-/-	
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 27 December 2004		Date of mailing of the international search report 18/01/2005
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer Hoffmann, N

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	MAEDA S ET AL: "A VERTICAL -SHAPE TRANSISTOR (V T) CELL FOR 1GBIT DRAM AND BEYOND" SYMPOSIUM ON VLSI TECHNOLOGY. DIGEST OF TECHNICAL PAPERS. HONOLULU, JUNE 7 - 9, 1994, NEW YORK, IEEE, US, vol. SYMP. 14, 7 June 1994 (1994-06-07), pages 133-134, XP000498617 ISBN: 0-7803-1922-2 the whole document	1-10
P,A	WO 2004/040666 A (HOENLEIN WOLFGANG ; LUYKEN RICHARD JOHANNES (DE); GRAHAM ANDREW (DE);) 13 May 2004 (2004-05-13) the whole document	1-10

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Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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			WO 03026034 A1	27-03-2003
			EP 1421633 A1	26-05-2004
			US 2004201107 A1	14-10-2004
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US 5612563	A	18-03-1997	US 5308778 A	03-05-1994
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			WO 2004040666 A1	13-05-2004